

Search Report and Written Opinion is attached. PCT/US2005/28946 was a CIP of PCT/US/2004/026762 of which the instant application is the US National Stage under Section 371. (There was neither Search Report nor Written Opinion nor International Preliminary Examination Report entered in the instant PCT application, US/2004/026762, of which this is a United States National Stage.)

We submit an Information Disclosure Statement herein referencing the two references of the related Search Report.

Remarks in Response to International Search Report and Written Opinion of Related Application

The independent claims herein are claims 1, 4, 5, 8, 17, 25 and 32. Independent claims 5 and 17 have been amended to recite apparatus structured to discharge dry chemical into the relevant space.

All independent claims, method and apparatus, now recite discharging dry chemical into the space (above a flammable liquid in the tank and below the roof) or structure or apparatus arranged to discharge dry chemical into the space.

Gomory, to the contrary, teaches applying a wet composition. Gomory teaches applying a mixture that includes particles and foam. The foam composition is wet. See Gomory column 1 lines 23-34 and lines 37-39; column 1 line 66 – column 2 line 7; column 2 lines 17-18 and 30-34; column 2 lines 65-67; column 3 lines 17-22; 29-31 and 69-71. One of ordinary skill in the art would believe that Gomory's composition is wet.

There is no teaching or suggestion that Gomory's wet "floatable" particles function like dry chemical.

Gomory and the instant invention, thus, teach two different systems.

As applicant discusses in the specification, such as on line 5 of page 2, NFPA has guidelines for extinguishing a fire by applying a foam blanket, including foam application requirements. The instant inventor discovered that in certain circumstances the NFPA guidelines may be inadequate. In certain circumstances a foam blanket itself may be inadequate. The instant invention teaches a judicious application of dry powder in the relevant tank space, in addition to the application of a foam blanket.

Gomory teaches applying "foam containing a carried solid," column 2, lines 17-18, and/or the value of adding small non-inflammable "floatable" solid materials to his foam. The scope of:

"discharging dry powder into a space between the roof and said blanket"; (claim 1)

"discharging dry chemical into the space"; (claim 4)

“structured to discharge dry chemical into the space”; (claim 5)

“discharging dry chemical into a cavity above the fuel/liquid and below the fixed roof portion”; (claim 8)

“and structured to discharge dry chemical into the space”; (claim 17)

“and structured such that dry chemical passes from the source through the piping/line and through the tank aperture to the discharge orifice”; (claim 25)

“discharging dry chemical through an aperture in at least one of the tank and the roof into space below the roof and above the foam blanket”; (claim 32)

does not read on applying foam containing a carried solid, as taught by Gomory. Dry chemical functions differently from Gomory’s wet solid to extinguish fire. One of ordinary skill in the art would not believe that “applying a dry chemical” reads on applying foam containing a solid. Gomory does not teach or suggest any value of applying a dry chemical in the circumstances. Gomory provides no means for applying a dry chemical.

For the above reasons applicant respectfully submits that Gomory does not teach or suggest the instant invention.

The Examiner refers to Gomory column 4 lines 3+. Applicant has specifically reviewed Gomory column 4 and following. In column 4, beginning end line 3, Gomory discusses how his invention is not limited to any particular foam forming composition. (Various acidic salts and carbonate salts could be used. Those of skill in the art would know whether or not stabilizers should be added.) In the next paragraph Gomory points out that the dry acidic salts and carbonate salts are mixed with water to form the foam. (Also liquid foam formers could also be used.) Gomory’s small, non-inflammable “floatable” solids are added to the foam. The foam delivers the floatable solids to the fire mixed in the foam bubbles. Gomory provides no teaching or suggestion, in col. 4 lines 3+ or elsewhere, of a structure for “applying a dry chemical” to the enclosed space. Gomory provides no teaching or suggestion of the advisability of doing so, or of any anticipated benefit thereof. Gomory teaches that his non-combustible “floatable” solid material, such as popped volcanic ash, would be regarded as a “wet solid” as mixed with the foam.

Review of Gomory’s drawings confirms the above. Gomory’s drawings show that Gomory’s “solid material” exists to begin with either as a “slurry” of floatable solids, tank 14, or as a dry solid mixed together with dry foam producing chemicals in tank 9. The chemicals of tank

9, however, are picked up and moved to the relevant enclosed space by water (passing through line 8 and inspirator 9a.)

Gomory, thus, neither teaches means for, nor suggests, applying a dry chemical to his enclosed space. Gomory teaches away from such.

Respectfully Submitted,

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